Evaluation of Top Energy 2013 Pricing Methodology

What we have been asked to do

The Electricity Authority engaged Castalia to carry out an independent evaluation of the pricing methodologies published by the 29 electricity distributors in New Zealand. This document provides our evaluation of Top Energy's 2013 pricing methodology[1] against:

- The **Information Disclosure Guidelines** (Table 1). The guidelines set out the information that should be provided in distributor pricing methodologies.
- The **Pricing Principles** (Table 2). The principles contain economic benchmarks that should be reflected in pricing methodologies to the extent practicable.

The purpose of this review is to understand how distributors interpret the guidelines and principles, and to provide suggestions on how to improve distributor pricing methodologies. This review does not focus on ensuring compliance with the guidelines and principles.

Our understanding of Top Energy's methodology

The table below summarises our understanding of the methodology that Top Energy uses to determine prices for its Non Time of Use consumer group. The purpose of this example is to explain our understanding of Top Energy's pricing methodology using the example of one consumer group (this is not a comprehensive summary of the pricing methodology that applies to all customers).

	Approach	Rationale
Customer categories	The basis for assigning customers to this group is that they do not have ToU metering	No explicit rationale provided, although the costs of serving these consumers is mainly related to both the share of the network demands at peak periods and to their geographic distribution
Cost allocation	Costs are allocated based on the group's associated assets and energy consumption	No rationale provided
Charging basis	Consumers in this group face both fixed ($/day) and variable (cents/kWh) tariffs, except for unmetered users who have wholly fixed tariffs. Low user fixed charges apply	The low user fixed charge is offered to comply with regulations

[1] Top Energy's 2013 pricing methodology is available online at: http://www.topenergy.co.nz/pdf/120327%20TEL%20Final%202012%20to%202013%20Pricing%20Methodology.pdf

Overview of our evaluation of Top Energy's methodology

To better align with the Information Disclosure Guidelines, the methodology could better explain the cost allocation methodology that is used. Although the methodology describes the method for allocating transmission costs, it does not provide an explanation for how distribution costs are allocated to different customer groups. The methodology should show whether either associated assets or energy consumption is used to allocate maintenance, overhead, depreciation, and return on assets costs and why the variables that are used are the best way to allocate costs. This would help to improve the transparency of the cost allocation methodology and to provide and understanding of why prices change over time.

With regard to the Pricing Principles, the methodology should show how prices link to the economic cost of providing lines services. Presenting estimates of the incremental cost of serving each customer group and then comparing that cost to the target revenue to be earned from each customer group would provide a clearer picture of whether Top Energy's prices are subsidy free. This would also help to show the proportion of the network's fixed costs that are recovered from each consumer group (which is simply the difference between the incremental cost and target revenue from each customer group). To align with principles (a)(ii) and (iii), Top Energy would need to link its pricing approach to the physical characteristics of the network, explaining how prices signal that using spare capacity has very low cost (through low prices) while using capacity during peak periods may bring forward future investment needs (through high prices). These signals should help to minimise costs the total costs to consumers over time by sharping consumer behaviour.

Table 1: Evaluation of the Pricing Methodology against the Information Disclosure Guidelines

Guideline	What is done well?	What is missing?
(a) Prices should be based on a well-defined, clearly explained and published methodology, with any material revisions to the methodology notified and clearly marked	▪ The document is published on Top Energy's website	▪ The methodology does not state whether the pricing methodology has been modified from last year ▪ The methodology would benefit from a structure that defines customer groups first, then allocates costs to groups before describing the tariff design and the way tariffs recover costs
(b) The pricing methodology disclosed should demonstrate: **(i)** How the methodology links to the pricing principles and any non-compliance	▪ The methodology recognizes the existence of cross subsidies	▪ The methodology could be more explicit in linking with the pricing principles although some references are found ▪ The methodology incorrectly references pricing principle (a) (ii) on page 4. We note that this is not the only principle which refers to efficiency ▪ We have found further instances of non-alignment to the pricing principles and have noted them in our pricing principles review
(ii) The rationale for consumer groupings and the method for determining the allocation of consumers to the consumer groupings	▪ The factors for grouping consumers are provided ▪ Customer groups are clearly divided ▪ The methodology presents a rationale for grouping consumers	▪ Within the NToU customer group it is not clear how overlap is prevented between small business and the rest ▪ Although consumer capacity is a factor for grouping consumers, the table on section 4 mostly groups customers based on consumption measures, i.e. GWh and kWh
(iii) Quantification of key components of costs and revenues	▪ The key cost components are presented in a table on page 7	
(iv) An explanation of the cost allocation methodology and the rationale for the allocation to each consumer grouping	▪ The methodology explains the allocation method for transmission charges	▪ The methodology does not explain how distribution costs are allocated ▪ The methodology does not provide a rationale for its cost allocation process

Guideline	What is done well?	What is missing?
(v) An explanation of the derivation of the tariffs to be charged to each consumer group and the rationale for the tariff design	▪ The tariff design and the rationale for the design are described in section 4 ▪ A description of tariff categories and their associated fixed and variable rates are presented in Appendix 1	▪ Additional to Appendix 1, the methodology should present a table showing how tariffs are expected to recover total target revenue ▪ Appendix 1 could be spread out over two pages for clearer legibility
(vi) Pricing arrangements that will be used to share the value of any deferral of investment in distribution and transmission assets, with the investors in alternatives such as distributed generation or load management, where alternatives are practicable and where network economics warrant.	▪ The methodology states that no pricing arrangements are in place for distributed generation	▪ The methodology appears contradictory on the payment of avoided costs of transmission. From page 8 it appears that ACOT is paid out to distributed generators but on page 11 the methodology states that "Top Energy has not developed separate or additional prices or payments for consumers that own distributed generation"
(c) The pricing methodology should: **(i)** Employ industry standard terminology, where possible	The methodology uses industry standard terminology	
(ii) Where a change to the previous pricing methodology is implemented, describe the impact on consumer classes and the transition arrangements implemented to introduce the new methodology.	▪ Inter-group rebalancing of tariffs is taking place in a progressive manner since a 2010 pricing review	▪ The methodology does not describe whether any changes to the pricing methodology have taken place since last year

Key to evaluation	Does not follow guidelines	Partially follows guidelines	Follows guidelines

Table 2: Evaluation of the Pricing Methodology against the Pricing Principles

Pricing principles	What is done well	What is missing
(a) Prices are to signal the economic costs of service provision by: **(i)** being subsidy free (equal to or greater than incremental costs, and less than or equal to standalone costs), except where subsidies arise from compliance with legislation and/or other regulation	▪ The methodology recognizes the existence of a cross subsidy from the commercial groups to the mass market group and is taking measures to reduce it progressively	▪ We would expect to see the approach to defining and calculating incremental and standalone costs. Given that the costs of serving commercial and industrial groups are properly recognized and recovered and that then the remaining costs are recovered through residential consumers, it is unlikely that cross subsidies are occurring. This might be a case of price discrimination
(ii) having regard, to the extent practicable, to the level of available service capacity	▪ The day night tariff is aimed at promoting consumption during night times when there is available service capacity	▪ The methodology should provide: – A description of current service capacities and how much is used to meet demand – An explanation of the relationship between prices and service capacity
(iii) signalling, to the extent practicable, the impact of additional usage on future investment costs		▪ We would expect to see: – Forecasts of investment needs to meet future demands – The relationship between prices and future investments. These points should be explained alongside the link drawn on page 2 between Top Energy's AMP and the 5 year pricing strategy
(b) Where prices based on 'efficient' incremental costs would under-recover allowed revenues, the shortfall should be made up by setting prices in a manner that has regard to consumers' demand responsiveness, to the extent practicable	▪ Residential consumers have a higher variable proportion to their tariff design than other consumer groups. This responds to the assumption that residential users have lower price-demand elasticity	▪ It is not clear from the methodology whether this principle applies ▪ The methodology should show how the distributor has attempted to gauge the demand responsiveness of the different consumer groups
(c) Provided that prices satisfy (a) above, prices should be responsive to the requirements and circumstances of stakeholders in order to:		▪ The methodology should describe when uneconomic bypass is likely to occur and the approach taken to mitigate it

Pricing principles	What is done well	What is missing
(i) discourage uneconomic bypass		
(ii) allow for negotiation to better reflect the economic value of services and enable stakeholders to make price/quality trade-offs or non-standard arrangements for services	▪ Extensive public consultation was carried out in 2009 which included questions on price/quality trade-offs and network development. The survey results were used in the subsequent AMP and contributed to the development of a 5 year pricing strategy	▪ Top Energy's approach to non-standard arrangements, if any, should be described
(iii) where network economics warrant, and to the extent practicable, encourage investment in transmission and distribution alternatives and technology innovation	▪ Avoided transmission and voltage support charges may be payable to embedded generators of greater than 1MW output	▪ The methodology could do more to encourage distributed generation such as not collecting variable charges from these users
(d) Development of prices should be transparent, promote price stability and certainty for stakeholders, and changes to prices should have regard to the impact to stakeholders	▪ Top Energy has decided to limit its price increase to CPI for the 2013-14 pricing year in spite having been allowed a 10% plus CPI increase ▪ Tariff rebalancing is done in a progressive manner to avoid shocks	
(e) Development of prices should have regard to the impact of transaction costs on retailers, consumers and other stakeholders and should be economically equivalent across retailers	▪ Pricing is even-handed in its treatment of different retailers ▪ Top Energy has bundled its transmission and distribution charges for all customers except large industrial ▪ Pricing for ToU customers is structured to reflect typical electricity retailers' pricing structures	

Key to Assessment	Does not align with principles	Partially aligns with principles	Aligns with principles